

COC # 177
CHAIN OF CUSTODY REPORT

1720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132
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(541) 383-9310 FAX 382-7588

Work Order #: **P160584**

CLIENT: Bristol		INVOICE TO: Bristol		TURNAROUND REQUEST in Business Days* Organic & Inorganic Analyses <div style="display: flex; justify-content: space-around;"> <div>10 7 5 4 3 2 1 <1</div> <div>STD. 5 4 3 2 1 <1</div> </div> STD. OTHER Please Specify <small>*Turnaround Requests less than standard may incur Rush Charges.</small>					
REPORT TO: Anne Kuanawether		P.O. NUMBER: 21090							
ADDRESS: Anchitha Island, AK									
PHONE: 907 770-0974		FAX: 770-0975							
PROJECT NAME: Anchitha		REQUESTED ANALYSES							
PROJECT NUMBER: 21090									
SAMPLED BY: cen / AJV									
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PAHs EPA 8270 5mL				MATRIX (W, S, O)	# OF CONT.	COMMENTS	N ID
1. OIAM F10 D35L	7/14/01 1115	X				S	1		
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									
14.									
15.									

SAMPLES TO PDX

RELINQUISHED BY: <i>[Signature]</i>	FIRM: Bristol	DATE: 7/14/01	RECEIVED BY: <i>[Signature]</i>	FIRM: NCA	DATE: 7-14-01
PRINT NAME: Charlie Marshall		TIME: 1632	PRINT NAME: Stephen Wilson		TIME: 1632
RELINQUISHED BY: <i>[Signature]</i>	FIRM: NCA	DATE: 7/18/01	RECEIVED BY: <i>[Signature]</i>	FIRM: NCA	DATE: 7/18/01
PRINT NAME: [Signature]		TIME: 1046	PRINT NAME: Sarah Passarge		TIME: 930

ADDITIONAL REMARKS: **Oil Sands treated on HAVE. PAHs no longer needed.**

TEMP: **1.2**

PAGE **1** OF **1**



Seattle 11720 Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.4200 fax 425.420.9210
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509.924.9200 fax 509.924.9290
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503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588

10 November, 2001

Anne Krarawetter
Bristol Environmental & Engineering
2000 W. International Airport Rd. #C-1
Anchorage, AK 99502-1116

RE: Amchitka

Enclosed are **amended** results of analyses for samples received by the laboratory on 07/18/01 09:30. If you have any questions concerning this report, please feel free to contact me. These results supercede all previous results reported by the laboratory.

Sincerely,

Jerry Orlando
Project Manager/QA

Work Orders included in this report:

P1G0584

Bristol Environmental & Engineering
2000 W. International Airport Rd. #C-1
Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 210901, PO# 21090
Project Manager: Anne Krarawetter


Amended Report
Issued: 11/10/01 14:09

ANALYTICAL REPORT FOR SAMPLES - Amended

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
01AMF1003SL	P1G0584-01	Soil	07/14/01 11:15	07/18/01 09:30

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.


Jerry Orlando, Project Manager/QA

North Creek Analytical, Inc.
Environmental Laboratory Network

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Bristol Environmental & Engineering
2000 W. International Airport Rd. #C-1
Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 210901, PO# 21090
Project Manager: Anne Krarawetter


Amended Report
Issued: 11/10/01 14:09

Polynuclear Aromatic Compounds per EPA 8270M-SIM
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMF1003SL (P1G0584-01) Soil						Sampled: 07/14/01	Received: 07/18/01		R-05
Acenaphthene	ND	536	ug/kg dry	20	EPA 8270m	07/23/01	07/27/01	1071566	R-03
Acenaphthylene	ND	268	"	"	"	"	"	"	
Anthracene	383	268	"	"	"	"	"	"	
Benzo (a) anthracene	ND	268	"	"	"	"	"	"	
Benzo (a) pyrene	ND	268	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	268	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	268	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	268	"	"	"	"	"	"	
Chrysene	ND	268	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	268	"	"	"	"	"	"	
Fluoranthene	ND	268	"	"	"	"	"	"	
Fluorene	ND	1340	"	"	"	"	"	"	R-03
Indeno (1,2,3-cd) pyrene	ND	268	"	"	"	"	"	"	
Naphthalene	ND	268	"	"	"	"	"	"	
Phenanthrene	987	268	"	"	"	"	"	"	
Pyrene	677	268	"	"	"	"	"	"	
Surr: Fluorene-d10	NR	40-150							S-02
Surr: Pyrene-d10	NR	40-150							S-02
Surr: Benzo (a) pyrene-d12	103 %	40-150							

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Bristol Environmental & Engineering
2000 W. International Airport Rd. #C-1
Anchorage, AK 99502-1116

Project: Amchitka
Project Number: 210901, PO# 21090
Project Manager: Anne Krarawetter

Amended Report
Issued: 11/10/01 14:09

Percent Dry Weight (Solids) per Standard Methods
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMF1003SL (P1G0584-01) Soil						Sampled: 07/14/01 Received: 07/18/01			
% Solids	91.2	1.00	% by Weight	1	NCA SOP	07/20/01	07/21/01	1071477	

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Bristol Environmental & Engineering
 2000 W. International Airport Rd. #C-1
 Anchorage, AK 99502-1116

Project: Amchitka
 Project Number: 210901, PO# 21090
 Project Manager: Anne Krarawetter

Amended Report
 Issued: 11/10/01 14:09

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 1071566 - EPA 3550

Blank (1071566-BLK1)

Prepared: 07/23/01 Analyzed: 07/25/01

Acenaphthene	ND	13.4	ug/kg						
Acenaphthylene	ND	13.4	"						
Anthracene	ND	13.4	"						
Benzo (a) anthracene	ND	13.4	"						
Benzo (a) pyrene	ND	13.4	"						
Benzo (b) fluoranthene	ND	13.4	"						
Benzo (ghi) perylene	ND	13.4	"						
Benzo (k) fluoranthene	ND	13.4	"						
Chrysene	ND	13.4	"						
Dibenzo (a,h) anthracene	ND	13.4	"						
Fluoranthene	ND	13.4	"						
Fluorene	ND	13.4	"						
Indeno (1,2,3-cd) pyrene	ND	13.4	"						
Naphthalene	ND	13.4	"						
Phenanthrene	ND	13.4	"						
Pyrene	ND	13.4	"						
Surr: Fluorene-d10	62.5		"	83.3		75.0	40-150		
Surr: Pyrene-d10	83.9		"	83.3		101	40-150		
Surr: Benzo (a) pyrene-d12	75.5		"	83.3		90.6	40-150		


LCS (1071566-BS1)

Prepared: 07/23/01 Analyzed: 07/25/01

Acenaphthene	137	13.4	ug/kg	167		82.0	33-139		
Benzo (a) pyrene	156	13.4	"	167		93.4	45-149		
Pyrene	148	13.4	"	167		88.6	39-138		
Surr: Fluorene-d10	67.1		"	83.3		80.6	40-150		
Surr: Pyrene-d10	89.5		"	83.3		107	40-150		
Surr: Benzo (a) pyrene-d12	80.3		"	83.3		96.4	40-150		

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Bristol Environmental & Engineering
 2000 W. International Airport Rd. #C-1
 Anchorage, AK 99502-1116

Project: Amchitka
 Project Number: 210901, PO# 21090
 Project Manager: Anne Krarawetter

Amended Report
 Issued: 11/10/01 14:09

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1071566 - EPA 3550

Matrix Spike (1071566-MS1)

Source: P1G0534-01

Prepared: 07/23/01 Analyzed: 07/26/01

Acenaphthene	147	13.4	ug/kg dry	189	ND	72.9	33-139			
Benzo (a) pyrene	165	13.4	"	189	34.1	69.3	45-149			
Pyrene	181	13.4	"	189	91.4	47.4	39-138			
Surr: Fluorene-d10	69.3		"	94.6		73.3	40-150			
Surr: Pyrene-d10	100		"	94.6		106	40-150			
Surr: Benzo (a) pyrene-d12	85.4		"	94.5		90.4	40-150			

Matrix Spike Dup (1071566-MSD1)

Source: P1G0534-01

Prepared: 07/23/01 Analyzed: 07/26/01

Acenaphthene	151	13.4	ug/kg dry	189	ND	75.0	33-139	2.68	60	
Benzo (a) pyrene	166	13.4	"	189	34.1	69.8	45-149	0.604	60	
Pyrene	179	13.4	"	189	91.4	46.3	39-138	1.11	60	
Surr: Fluorene-d10	76.4		"	94.6		80.8	40-150			
Surr: Pyrene-d10	99.4		"	94.6		105	40-150			
Surr: Benzo (a) pyrene-d12	86.9		"	94.5		92.0	40-150			

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Bristol Environmental & Engineering
 2000 W. International Airport Rd. #C-1
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Project: Amchitka
 Project Number: 210901, PO# 21090
 Project Manager: Anne Krarawetter

Amended Report
 Issued: 11/10/01 14:09

Percent Dry Weight (Solids) per Standard Methods - Quality Control

North Creek Analytical - Portland


Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1071477 - Dry Weight

Duplicate (1071477-DUP1)		Source: P1G0377-13		Prepared: 07/20/01 Analyzed: 07/21/01						
% Solids	72.6	1.00 % by Weight			73.6			1.37	20	
Duplicate (1071477-DUP2)		Source: P1G0377-11		Prepared: 07/20/01 Analyzed: 07/21/01						
% Solids	73.5	1.00 % by Weight			73.5			0.00	20	
Duplicate (1071477-DUP3)		Source: P1G0377-12		Prepared: 07/20/01 Analyzed: 07/21/01						
% Solids	80.2	1.00 % by Weight			81.5			1.61	20	
Duplicate (1071477-DUP4)		Source: P1G0685-01		Prepared: 07/20/01 Analyzed: 07/21/01						
% Solids	81.4	1.00 % by Weight			83.5			2.55	20	

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Project: Amchitka
Project Number: 210901, PO# 21090
Project Manager: Anne Krarawetter


Amended Report
Issued: 11/10/01 14:09

Notes and Definitions

- R-03 The reporting limit for this analyte was raised due to matrix interference.
- R-05 Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.
- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
- wet Sample results reported on a wet weight basis (as received)
- RPD Relative Percent Difference

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